

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 2000040822 A

(43) Date of publication of application: 08.02.00

(51) Int. Cl.
H01L 29/78
H01L 21/336

(21) Application number: 10209267

(22) Date of filing: 24.07.98

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(54) SUPERJUNCTION SEMICONDUCTOR ELEMENT
AND ITS MANUFACTURE

n-buried regions 32b and the p-buried regions 32c
are formed by diffusion of impurities.

(57) Abstract:

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PROBLEM TO BE SOLVED: To provide a superjunction semiconductor element in which in crease of current capacity generated by reduction of ON resistance is enabled while a high withstand voltage is ensured, by relaxing the trade-off relation of an ON resistance and a withstand voltage, and its manufacturing method which can simply manufacture the element with excellent productivity.

SOLUTION: A semiconductor substrate region 32 which makes a current flow in the state of ON and is turned into depletion in the state of OFF is provided with n-buried regions 32b and p-buried regions 32c which are almost periodically and alternately formed in a plurality of depths. The n-buried regions 32b and the p-buried regions 32c are almost aligned in the depth direction. In the manufacturing method an n- high resistance layer 32a laminated by an epitaxial method and the

